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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Andrea Barbaresi

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FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER
LLP
901 NEW YORK AVENUE, NW
WASHINGTON, DC 20001-4413

EXAMINER

PATEL, SHAMBHAVI K

ART UNIT

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2128

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/582,966	Applicant(s) BARBARESI ET AL.	
	Examiner SHAMBHAVI PATEL	Art Unit 2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/15/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 23-44 have been presented for examination. Claims 1-22 have been cancelled.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 15 June 2006 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the Examiner has considered the IDS as to the merits.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 23-44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite** for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- i. Regarding **claims 23 and 33**, the term “inter-work” is vague and indefinite.
- ii. Regarding **claims 23 and 33**, the terms “the system that regulates the operation of the network” and “the system under consideration” do not have sufficient antecedent basis.
- iii. Regarding **claims 23 and 33**, the first limitation is vague and indefinite. If the device is completely independent of the system, how is it incorporated into the system simulation?
What is an independent device?
- iv. Regarding **claims 24 and 34**, there is insufficient antecedent basis for the term “individual system” and the limitation “having an architecture that is characteristic of the individual system” (specifically, the meaning of the term characteristic within the context of the limitation) is vague and indefinite.
- v. Regarding **claims 25 and 35**, the term “fixed network devices” is vague and indefinite.
- vi. Regarding **claims 26 and 36**, there is insufficient antecedent basis for the term “core network”, and the term is vague and indefinite.

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- vii. Regarding **claims 27 and 37**, the limitation “relating to said communication network” is vague and indefinite, and there is insufficient antecedent basis for the limitation “said communication network in said second set”.
- viii. Regarding **claims 29 and 39**, the limitation “modules which are common to all systems of said plurality but with partly different operations according to the related system” is vague and indefinite. If the modules are common to all systems, how do they behave differently according to each system?
- ix. Regarding **claims 30 and 40**, there is insufficient antecedent basis for the term “so-called core network”, and the term is vague and indefinite. The second limitation is vague and indefinite. What is the configuration based on?

All other claims are rejected by virtue of their dependency.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 23-44 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

- i. The Examiner asserts that the current state of the claim language is such that a reasonable interpretation of the claims would not result in any tangible result. Specifically, the claimed subject matter does not produce a tangible result because the claimed subject matter fails to produce a result that is limited to having real world value rather than a result that may be interpreted to be abstract in nature as, for example, a thought, a computation, or manipulated data. More specifically, the claimed subject matter provides for sets of devices that are capable of allowing the simulation of a network operating according to a plurality of systems (**claim 23**) and a set of devices defining a simulator architecture which is capable of allowing

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the simulation of a network according to a plurality of systems (**claim 33**). This produced result remains in the abstract and, thus, fails to achieve the required status of having real world value.

- ii. **Claim 33** is an apparatus claim (a simulator), but appears to claim only software elements (i.e. simulated devices).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

- 6. **Claims 23-44 are rejected under 35 U.S.C. 102(b)** as being clearly anticipated by **Barbaresi (WO 02/104055)**.

Regarding claims 22 and 33:

Barbaresi discloses a method for simulating communication networks by means of an object based architecture in which each object represents a device of the network, the simulated network being capable of corresponding to a plurality of different systems, comprising the step of subdividing the physical devices of the network, for simulation purposes, into:

- a. a first set of devices completely independent of the system that regulates the operation of the network, the operation of the devices of said first set thus being independent of said system (**page 6 last paragraph: devices representative of physical devices of the network**)
- b. a second set of devices which depend on the system under consideration, the operation of the devices in said second set thus being specific for the system under consideration (**page 6 last paragraph: objects relating to the scenario to be simulated**)
- c. a third set of devices for the inter-work between said first set and said second set, the devices of said third set being able to interact with said devices independent of the system under

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consideration and with said devices which depend on the system under consideration (**page 9 4th paragraph: radio link**)

- d. said sets of devices defining a simulation architecture which is capable of allowing the simulation of a network operating according to said plurality of systems (**abstract: modular strubcture based on interchangeable objects allows simulation of networks**)

Regarding claims 24 and 34:

Barbaresi discloses providing in said second set, mobile terminal devices, each having an architecture that is characteristic of the individual system (**page 6 last paragraph: objects relating to the scenario to be simulated**).

Regarding claims 25 and 35:

Barbaresi discloses providing fixed network devices in said first set (**page 6 last paragraph: devices representative of physical devices of the network**).

Regarding claims 26 and 36:

Barbaresi discloses providing physical devices of the core network of a mobile communication network in said third set (**page 9 4th paragraph: radio link**).

Regarding claims 27 and 37:

Barbaresi discloses providing physical devices of the access network relating to said communication network in said second set (**page 6 last paragraph: objects relating to the scenario to be simulated**).

Regarding claims 28 and 38:

Barbaresi discloses the method as claimed in claim 24, wherein said mobile terminal devices comprise a part that is common to all the systems of said plurality and a part that is specific for a respective system under consideration (**page 7 2nd paragraph: MS 41**).

Regarding claims 29 and 39:

Barbaresi discloses modeling said mobile terminal devices as a grouping of modules simulating the behavior of different real protocols by means of: a set of application modules, common to all the systems of said plurality (**page 7 2nd paragraph: mobility module**), access modules, specific of the system under consideration, and modules which are common to all the systems of said plurality but with partly different operation according to the related system (**page 7 2nd paragraph: class emulating behavior**).

Regarding claims 30 and 40:

Barbaresi discloses including physical devices of the so-called core network of a mobile communication network in said third set and configuring the set of said application modules and of said core network modules in a mobile unit (**page 9 4th paragraph: radio link**).

Regarding claims 31 and 41:

Barbaresi discloses configuring said mobile terminal devices as constituted by the composition of said mobile unit and of specific access modules of the system under consideration (**page 4 3rd paragraph: configuration**).

Regarding claims 32 and 42:

Barbaresi discloses making radio access modules of said mobile terminal devices communicate with the modules present in the devices of said second set (**page 9 2nd-4th paragraphs: access to radio resources**).

Regarding claim 43:

Barbaresi discloses a communication network resulting from the application of the method as claimed in claim 23 (**page 13 last paragraph**).

Regarding claim 44:

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Barbaresi discloses a computer program product capable of being loaded in the memory of at least an electronic computer and comprising portions of software code capable of implementing the method as claimed in claim 23 (**page 4 1st-2nd paragraphs**).

Conclusion

7. **Examiner's Remarks:** Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in their entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shambhavi Patel whose telephone number is (571) 272-5877. The examiner can normally be reached on Monday-Friday, 8:00 am – 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on (571) 272-2279. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SKP

/Kamini S Shah/
Supervisory Patent Examiner, Art Unit 2128

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